

Amendments to the Specification:

Please replace paragraph number 6. in the application with the following paragraphs:

6.1 Figure 1 is a diagram of light rays traveling from a scene through an optical array having four optical systems, each system creating an independent image operating according to our method.

6.2 Figure 2 is a diagram showing light from the scene being attenuated by the first system, which is comprised of a linear polarizer with a horizontal transmission axis. It also shows the image formation of the first system.

6.3 Figure 3 is a diagram showing light from the scene attenuated by the second system, which is comprised of a linear polarizer with a vertical transmission axis. It also shows the image formation of the second system.

6.4 Figure 4 is a diagram showing light from the scene attenuated by the fourth system, which is comprised of a retarder whose fast axes is horizontal and by a linear polarizer with a transmission axis at an angle $\theta = 45$ degrees relative to the horizontal direction. It also shows the image formation of the fourth system.

6.5 Figure 5 is a diagram showing light from the scene attenuated by the third system, which is comprised of a linear polarizer with a transmission axis oriented at an angle $\theta = 45$ degrees relative to the horizontal direction. It also shows the image formation of the third system.

6.6 Figure 6 is a diagram of the Poincarè sphere. The center of the sphere is the origin of a rectangular Cartesian coordinate system. The sphere has a unit radius. Every

polarization state is associated with a unique point in or on the sphere. The normalized Stokes parameters are represented by the x, y and z coordinates of a point on or inside of the sphere. Points inside the sphere correspond to partially polarized light, points on the surface of the sphere correspond to light that is completely polarized.

Please replace paragraph number 7. in the application with the following paragraphs:

7.1 Figure 7 shows a pseudo-color visualization of the surface of the Poincaré sphere when viewing the sphere along the +z axis.

7.2 Figure 8 shows a pseudo-color visualization of the surface of the Poincaré sphere when viewing the sphere along the -z axis.

7.3 Figure 9 shows a pseudo-color visualization of the surface and partial interior of the Poincaré sphere when viewing the sphere along the +x axis.

7.4 Figure 10 shows the relationship between the polarization forms, the corresponding pseudo-colors and the corresponding location on the Poincaré sphere when viewing the sphere along the +x axis.

7.5 Figure 11 shows a pseudo-color view of the surface and partial interior of the Poincaré sphere when viewing the sphere along the -x axis.

7.6 Figure 12 shows the relationship between the polarization forms, the corresponding pseudo-colors and the corresponding location on the Poincaré sphere when viewing the sphere along the -x axis.

7.7 Figure 13 shows the pseudo-coloring of the horizontal, equatorial plane of the Poincarè sphere. The colors along the perimeter of this plane are used to encode azimuth and ellipticity polarization angles in a scene.

Please insert the following paragraph in the application after paragraph number 8. and before paragraph number 9. :

8.1 It will be noted that Figures 7 through 13 depict various views of our pseudo-color version of a Poincarè sphere. These figures, due to US Patent Office regulations, must be in black and white. However, it will be understood that our Poincarè sphere contains the colors red, blue, green and blends of these colors. In Figures 7 through 13, zones of our version of the Poincarè sphere that are primarily red, blue or green are designated by reference letters R, G and B , respectively.